ous exercises, for all of which answers are given with the degree of numerically accurate approximation stated in each case.

Without doubt the teaching of mathematics in the present generation has embodied an extreme degree of formal theory and proof and all too little of contact with practical things. It is, however, an open question whether the exclusive use of a text like this one under consideration will not lead to the opposite extreme and tend to produce a generation of mechanical manipulators, who can work by the rules but who have no foundation of knowledge upon which to make rules for themselves or to work out along independent lines. It seems evident that both demonstrable knowledge and practical skill are necessary and that these should be developed simultaneously. Such a text as this may well be thrust into the present one-sided situation in order to restore the balance, but the ultimate result is likely to be the more equal blending of the two extremes.

H. E. SLAUGHT

UNIVERSITY OF CHICAGO

Essentials in English History. By ALBERT PERRY WALKER, in consultation with ALBERT BUSHNELL HART. New York: American Book Co., 1905. Pp. xlii+550.

This book is in many respects an ideal textbook. The author has been very successful in eliminating unessential details and presenting only the leading issues of English history. The book is well adapted to the needs of high-school students and bears evidence to the fact that the writer, unlike a number of other authors of similar texts, has had experience in teaching pupils in secondary schools and does not aim above their heads. It is not a dry compend of facts, but a clear and interesting portrayal of the life and civilization of the English people from the earliest beginnings down to the present. The facts are well correlated; the author nowhere loses himself in meaningless details but constantly emphasizes the broad lines of historical development. He has been especially fortunate in his treatment of life and manners, of social, economic and intellectual progress. The chapters on the Tudor period are the weakest part of the book. The Reformation and Renaissance movements are inadequately presented. It is strange that in the description of the Reformation the name of Luther should not even be mentioned. The evolution of the Cabinet system might also have been more fully described. The author is at his best in his treatment of the modern period. The concluding chapter on England's contribution to civilization is especially commendable.

The book contains thirty-eight brief chapters: one for each week of the school year. The account is continuous, topical headings being placed in the margin. Helps to further study in the form of references, topics, bibliographies, and extracts from important documents add value to the volume. The maps and illustrations could hardly have been better chosen.

GEORGE L. SCHERGER

ARMOUR INSTITUTE OF TECHNOLOGY

Essentials in Mediæval and Modern History. By SAMUEL BANNISTER HARDING, in consultation with ALBERT BUSHNELL HART. New York: American Book Co., 1905. Pp. xxxi+612.

This text, in accordance with the suggestion of the Committee of Seven, begins

the account of the mediæval period with the year 800 A. D., and aims to give the essential facts in the history of Europe since that date. It is a book that deserves hearty commendation and one which in the hands of a capable teacher should yield excellent results. Like the other books in this series of history texts the mechanical features, such as paper, type, binding, and illustrations, are of the highest order. The maps in particular are excellent. The helps to further study in the form of topics, references, and bibliography, are judiciously selected.

In point of scholarship little or no fault can be found with the book. It shows everywhere extensive reading, good judgment and happy characterization. Quotations from the best primary and secondary sources are aptly interspersed. The style in general, is clear. There may be some doubt, however, as to whether the author has always kept in view the needs and attainments of pupils in the secondary schools, for whom the text is intended. Now and then he has the tendency to crowd together too many details. By omitting entirely the account of the reigns of the less important French and German rulers and by eliminating a number of relatively unimportant points, more space might have been gained for elucidating the more important movements. The fine chapters on the church in the Middle Ages and life in the mediæval castle, village, and town occasion regret that the author did not devote more space to institutional development, especially in the modern period.

On the whole, the book is one of the most attractive and satisfactory texts on the subject now available.

GEORGE L. SCHERGER
ARMOUR INSTITUTE OF TECHNOLOGY

The Art of Geometry. By ARTHUR LATHAM BAKER. Boston: Sibley & Co., 1905. Pp. v+48.

The science and logic of geometry are given in the current textbooks. It is the purpose of the author of *The Art of Geometry* to present a systematic method of procedure which will enable the student to understand the reason for each step in the study of a proposition, other than its logical correctness, and which will serve as a guide to enable him to attack original exercises with confidence in his ability to solve them. Following a brief introduction, which consists principally of definitions, there is given a summary of geometric tools, also a list of suggestive combinations, and another of construction tools which are frequently used. The subjects of other chapters are the "Art of Demonstration," "Art of Construction Problems," "Syllabus of Propositions," and an Appendix on "Plane Geometry."

The reviewer submits two specific criticisms on the book: The matter is presented in language unnecessarily lacking in simplicity and clearness. For instance: "The ascertainment of the Dominant Operation shows the specific goal, etc." What is the advantage of the term "dominant operation" when the geometries use the simpler one, "to prove that" or "to construct." Again, "the technique of geometry consists in the intelligent and purposive use of these tools;" "Plane Geometry is the science of those metrical continua which are generated by the conjunction of straight lines in a plane;" "These four things constitute the sole agenda of plane geometry."

The Art of Geometry is a tool for the solution of geometrical exercises. As such it seems to the writer altogether too complex to be effective. Let the teacher of geometry constantly keep before the minds of his pupils the thought that they must constantly search for the geometrical images suggested by what is given and what is to